```matlab
clear all;

% Parameters
Tend = 1.0;
b = 10.0;
c = b^2/4;
h1 = 0.5;

A1 = 1 + b/2 * h1 + c/4 * h1^2;
B1 = 1 + b/2 * h1 - c/4 * h1^2;
C1 = h1;
E1 = (1 - b/2 * h1)/(1 + b/2 * h1);
F1 = (-c/2 * h1)/(1 + b/2 * h1);

% Initialization
i = 1;
t(i) = 0.0;
y1(i) = 1;
y2(i) = 0;
Eh1 = zeros(1000,1);


% Exact solution
tt = linspace(0, Tend, 1000);
ye = (1 + b/2*tt).*exp(-b/2*tt);


% Recursive scheme for Theta method (h1)
while (t(i) + h1 < Tend + 1.e-12)
    y1(i+1) = B1/A1 * y1(i) + C1/A1 * y2(i);
    y2(i+1) = E1 * y2(i) + F1 * y1(i) + F1 * y1(i+1);
    Eh1(i+1,1) = abs(y1(i+1) - ye(i+1));
    t(i+1) = t(i) + h1;
    i = i+1;
end


% Compare numerical solution with exact solution
figure(1);
plot(tt, ye, '-', t, y1, 'r-o');
legend('Exact solution', 'Theta method (\Theta = 0.5) solution (h = 0.5)', 'Location', 'best');
xlabel('t');
ylabel('y(t)');
```